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Period 6

Bungee Jumping Barbies

Barbie has done almost everything imaginable. From daycare to supermodel, or from doctor to veterinarian, Barbie has no disappointment from her fans. Well now, Barbie is setting off for diving down in the air for bungee jumping!

Barbie explains that the main purpose of this chaotic action is for students in Mrs. Knox’s eighth grade to measure the distance of Barbie’s jumps off chairs, desks, and walls. Then, students in each group will try to calculate and predict how many bungee cords (aka rubber bands) they will need for Barbie to bungee jump off the stairwell without hurting Barbie, based on the information they received from recent jumps the students measured.

In order for the students to predict the amount of bungee cords Barbie will need on the stairwell jump, the students needed information on recent jumps to further predict. So, we measured the average distances Barbie bungee jumped increasing the number of rubber bands after three trials each. Then, we took the average of trials by the number of rubber bands and divided them. Once we got our average of 482, we needed to find how many rubber bands that would cover for Barbie to jump 482 inches. We then saw in one of our trials that the average number for four rubber bands is 121.6, we divided 482 by four, and we got 120.5 which is exactly the amount of bungee cord we need because we need the exact amount plus a little extra. Since we divided by four, we multiplied by four to see how long the bungee cord needed to be. We got 16 rubber bands.

Barbie’s jump down the stairwell was excellent. Her hair didn’t even touch the ground, but was close to touching which gave Barbie’s jump a little excitement. The height of the stairwell jump was 120.5 inches, so we got 16 rubber bands for 121.6 inches so we could have the exact amount of bungee cord, plus a little extra to hold when she jumps.

Our group had excellent equation distances for Barbie’s jump, as well as organization. One problem was that not everyone in the group participated. I think one improvement that could help, would be to work as a group more.